# Contents

**Foreword** ................................................. ix  
Bernard REBER  

**Acknowledgments** ............................................ xv  

**Introduction** ................................................... xvii  

**Chapter 1. Defining Ethics and Participation** ................. 1  
1.1. Ethical challenges in research and innovation ................. 2  
1.1.1. Ethics in governance of research and innovation ............ 2  
1.1.2. Bottom-up approaches ....................................... 6  
1.2. Facing responsibility ........................................ 10  
1.2.1. The notion of responsibility in innovation .................. 10  
1.2.2. Ethics and technology assessment: at the root of responsible innovation ............................................. 14  
1.2.3. From ethics of technology to responsible research and innovation .................................................. 18  
1.3. Public participation and the ideal of participatory democracy 22  
1.3.1. Public participation in research and innovation ............ 22  
1.3.2. Participation in technology assessment ....................... 26  
1.3.3. From broad participatory practices to deliberation ........ 29  
1.4. The diverse field of participation ................................ 33  
1.4.1. Defining participatory activities: types and timelines ...... 33  
1.4.2. Defining participants: types of actors and visions of engagement .................................................... 37  
1.4.3. Finding value in participation ................................ 42  
1.4.4. Models of participation ........................................ 45  
1.5. Conclusion .................................................... 48
### Chapter 2. Regulations on Ethics and Participation

- 2.1. Policies and regulations on the ethics of innovation .......... 49
- 2.1.1. Main regulations on research ethics and research integrity .... 49
- 2.1.2. Ethics assessment: a standard in European funding programs .... 54
- 2.2. Analysis of current European regulations on ethics and participation .. 58
  - 2.2.1. The different institutional configurations for ethics and participation ................................................. 58
  - 2.2.2. The current deadlocks of European regulatory bodies .......... 63
  - 2.2.3. Ethics of participation: current boundaries .................. 68
- 2.3. Soft law on participatory approaches ................................ 70
  - 2.3.1. Re-shaping participatory approaches through soft law: toward a normative instrument ........................................... 70
- 2.4. Beyond regulations: institutional needs for ethical participation ... 73
  - 2.4.1. The needs from a governance point of view .................. 73
  - 2.4.2. Identifying good practices and criteria for ethical participation ......................................................... 77
- 2.5. Conclusion ......................................................... 82

### Chapter 3. Ethical Participation

- 3.1. How mainstream is citizen participation? .......................... 86
  - 3.1.1. A case study on research funding organizations ............... 86
  - 3.1.2. Citizens’ low involvement in R&I processes .................. 91
  - 3.1.3. Prevailing types of participation ................................ 98
- 3.2. Leveraging the funding of R&I for a novel approach to participation ................................................................. 102
  - 3.2.1. Context-sensitive specificities .................................. 102
  - 3.2.2. Expectations and legitimacy in the funding of R&I ............. 104
  - 3.2.3. The impact of participatory practices .......................... 111
- 3.3. Addressing the needs of research funding organizations .......... 114
  - 3.3.1. Standardized approaches and the European discrepancies .... 114
  - 3.3.2. Ethical grounds meeting public scrutiny ........................ 117
- 3.4. Toward an ethics framework ....................................... 119
  - 3.4.1. Finding common paths and compromises in R&I governance .... 119
  - 3.4.2. Main critical factors facing institutions ...................... 123
- 3.5. An ethics framework for participation ............................ 125
  - 3.5.1. Some guidelines for future ethics frameworks ................. 125
  - 3.5.2. A tentative ethics framework ................................... 128
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusion</td>
<td>133</td>
</tr>
<tr>
<td>Appendices</td>
<td>143</td>
</tr>
<tr>
<td>Appendix 1: Categories Considered in the Case Study on Research Funding Organizations</td>
<td>145</td>
</tr>
<tr>
<td>Appendix 2: Tentative Ethics Framework</td>
<td>149</td>
</tr>
<tr>
<td>References</td>
<td>179</td>
</tr>
<tr>
<td>Index</td>
<td>193</td>
</tr>
</tbody>
</table>